

Work Order ID 65755

Tuesday, January 25, 2011 10:25:20 AM



Page 1

Item ID: D206-642-541

Accept



Setup Start



Revision ID:

Stop



Item Name: Replacement Skidtube

Start Date: 1/24/2011 Start Qty: 1.00



Cust Item ID:

Required Date: 1/31/2011 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan: *PL*Date: *1-01-25* Tooling:

Date:

Run Start



QC:

Date: SPC (Y/N):

Date:

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

Draw Nbr

Revision Nbr

D3274

D

IIN-D206-642

Rev M

100

0.00



DOCUMENT CONTROL

DC

0.00

Memo

Document Control

Photocopy bluefile & type labels per PPP D206-642-541

CHG003

OK for BG 11/01/25

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

NOTE: Date & initial all entries

Work Order ID 65755

Page 2

Tuesday, January 25, 2011 10:25:20 AM

Item ID: D206-642-541

Accept



Setup Start



Revision ID:

Stop



Item Name: Replacement Skidtube

Start Date: 1/24/2011 Start Qty: 1.00



Cust Item ID:

Required Date: 1/31/2011 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

110

0.00



Skidtubes

Skidtubes

Memo

0.00

Skidtubes

VERIFY AND INSPECT THE MATERIAL PRIOR TO USE

1- Bend FWD end of tube using bend prog D3274 FWD and foil 10 as per dwg D3274, cut fwd end of tube with saw table setup D3274.

DP

11-1-26

2- remove fwd indexing ridge as per dwg D3274. Prepare for welding

BB

11/01/27

3- weld fwd cap as per dwg D3274 and QSI004

AR Aluminum Rod Batch:

M11365/M116577

BE 11/01/31

4- grind fwd cap weld on top surface only

BE 11/01/31

5- Cut AFT end of tube at 170.9" as per dwg D3274 and deburr end.

6-Drill Aft cap pilot hole using DT8025

7 -Cleco DT8025 in position and install pilot hole drill Jig DT8742A,B,C,D.
Drill 3/16" pilot holes as per Dwg D3274

BE 11/02/01

8 -Remove inner indexing ridge on aft end of skidtube as per Dwg D3274 scribe
batch #

9 -Open aft end cap holes to Ø0.208" as per Dwg D3274. Deburr aft end.

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

NOTE: Date & initial all entries

Work Order ID 65755

Tuesday, January 25, 2011 10:25:20 AM



Page 3

Item ID: D206-642-541

Accept



Setup Start



Revision ID:

Stop



Item Name: Replacement Skidtube

Start Date: 1/24/2011 Start Qty: 1.00



Cust Item ID:

Required Date: 1/31/2011 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

114

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

Sub 2101

116

QC10- Inspect visual per QSI004- ground welds

0.00



QC

Memo

0.00

Quality Control

Sub 2101

Y0

120

Chemical Conversion Coat per QSI005 4.1

0.00



HandFinish

Memo

0.00

Hand Finishing

DP

11-2-2

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

NOTE: Date & initial all entries

Work Order ID 65755

Tuesday, January 25, 2011 10:25:20 AM

Page 4

Item ID: D206-642-541

Accept

Revision ID:

Item Name: Replacement Skidtube

Start Date: 1/24/2011 Start Qty: 1.00

Required Date: 1/31/2011 Req'd Qty: 1.00

Reference:

Cust Item ID:

Customer:

Approvals:

Process Plan:

Date:

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run Start

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

130

QC3- Inspect Part Finish

0.00



QC

Memo

0.00

Quality Control

1 0 BE 1/02/02

150

Skidtubes

0.00



Skidtubes

Memo

0.00

Skidtubes

1-Open Ø0.313" and 0.375" crossbolt spacer holes as per Dwg D3274

2-Deburr crossbolt spacer holes as per Dwg D3274 and blow out chips from inside the tube

3-Bond web in place as per Dwg D3274 & QSI 015.

A/R ☐ Sikaflex-291 ☐ 11/16/04 ☐Sikaflex expire date: ☐ 11/09/10 ☐Start: ☐ 1/02/02 ☐ Time: ☐ 9:30 ☐Finish: ☐ ☐ Time: ☐

(Adhere for 12 hours)

11/02/03 @ 9:20am

1 0 BE 1/02/02

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

NOTE: Date & initial all entries

Work Order ID 65755

Tuesday, January 25, 2011 10:25:20 AM

Page 5

Item ID: D206-642-541

Accept

Revision ID:

Item Name: Replacement Skidtube

Start Date: 1/24/2011 Start Qty: 1.00

Required Date: 1/31/2011 Req'd Qty: 1.00

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start
StopSequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

160



QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

8/10/03

Memo

0.00

40

170



Skidtubes

Skidtubes

Skidtubes

0.00

0.00

Memo

1-Bend AFT end of tube using bend prog. D3274 AFT as per dwg D3274. Install drop pins in crossbolt spacer holes to maintain web position.

2- DRILL PILOT HOLES FOR WEARPLATES USING D3274-1T2
OPEN HOLES TO .297" . Deburr3-DRILL TOE PIN HOLE .640" DIA AS PER DWG USING DT8935 FWD
END OF TUBE
DEBURR INSIDE OF HOLE AS NECESSARY (DO NOT ENLARGE HOLES)
REMOVE ANY FOREIGN OBJECTS INSIDE OF TUBES

4- Countersink crossbolt spacer holes as per Dwg D3274

5- prepare for welding

DP

11-2-3

38

11/02/03

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

NOTE: Date & initial all entries

Work Order ID 65755

Tuesday, January 25, 2011 10:25:20 AM



Page 6

Item ID: D206-642-541

Accept



Setup Start



Revision ID:

Item Name: Replacement Skidtube

Stop



Start Date: 1/24/2011 Start Qty: 1.00



Cust Item ID:

Required Date: 1/31/2011 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start



Stop



Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

180



QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

2.93
4.50

Memo

0.00

1 0 BE 1/02/03

190



Skidtubes

Skidtubes

Skidtubes

Memo

0.00

0.00

1-Insert D2649 & D3275-1 crossbolt spacers. Weld as per QSI 004 and Dwg D3274. Remember to back drill each hole before welding the other side. Use aluminum rod
A/R ☐ Aluminum Rod ☒ mill 385

3-Grind cross bolt welds flush as per Dwg D3274.

4-Counterbore 5/16" x 0.750" deep as per Dwg D3274 and deburr.

BE 1/02/03

3 BE 1/02/07

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

NOTE: Date & initial all entries

Work Order ID 65755

Page 7

Tuesday, January 25, 2011 10:25:20 AM

Item ID: D206-642-541

Accept



Setup Start



Revision ID:

Stop



Item Name: Replacement Skidtube

Start Date: 1/24/2011 Start Qty: 1.00



Cust Item ID:

Required Date: 1/31/2011 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

200

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Sulzer

Quality Control

210

QC10- Inspect visual per QSI004- ground welds

0.00



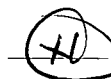
QC

Memo

0.00

Sulzer

Quality Control



220

Pressure Wash per QSI005 4.3

0.00



HandFinish

Memo

0.00

Hand Finishing

Re-alodine tube as per QSI 005 section 4.1.2.1 do not acid etch

1 0 24 1/22/08

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

NOTE: Date & initial all entries

Work Order ID 65755

Tuesday, January 25, 2011 10:25:20 AM



Page 8

Item ID: D206-642-541

Accept



Setup Start



Revision ID:

Stop



Item Name: Replacement Skidtube

Start Date: 1/24/2011 Start Qty: 1.00



Cust Item ID:

Required Date: 1/31/2011 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

230



Powdercoat

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

0.00

M115951

Memo

0.00

START TIME: 3:50

OVEN TEMPERATURE: 320°

FINISH TIME: 7:20

1

BLOW-02-8.

Powder Coating

240



QC

QC3- Inspect Part Finish

0.00

Memo

0.00

1

d M 1102109

Quality Control

250



HandFinish

HandFinishing

0.00

Memo

0.00

1-Install Nut Plate as per Dwg D3274. Apply LPS-3 to Nut Plate and rivets.

A/R□□A□LPS-3□ M1109956

2-Install inserts as per Dwg D3274. Use a drop of Sikaflex inside insert holes a

A/R□□Sikaflex-291 □ M11511R□

Sikaflex expire date: □ 11101

1

d M 1102109

Hand Finishing

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

NOTE: Date & initial all entries

Work Order ID 65755

Tuesday, January 25, 2011 10:25:20 AM



Page 9

Item ID: D206-642-541

Accept



Setup Start



Revision ID:

Stop



Item Name: Replacement Skidtube

Start Date: 1/24/2011 Start Qty: 1.00



Cust Item ID:

Required Date: 1/31/2011 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

260



QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

Memo

0.00

Inspect Nut Plate & Inserts

11 11 02 08 11

270



HandFinish

Hand Finishing

HAND FINISHING RESOURCE #1

0.00

Memo

0.00

1-Install wearpads & gaskets as per Dwg D3274.

2-Install ring as per Dwg D3274

A/R ☐ Sikaflex-291 ☐ M115118Sikaflex expire date: ☐ 11/01

3-Inspect for foreign objects as per QSI 024

4-Spray inside of tube on both sides of web with LPS-3

A/R LPS-3 Batch: 12/10

5-Install Aft Cap and seal with Sikaflex. Clean excess adhesive.

A/R ☐ Sikaflex-291 ☐ M115118Sikaflex expire date: ☐ 11/01

1 11 02 09

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

NOTE: Date & initial all entries

Work Order ID 65755

Page 10

Tuesday, January 25, 2011 10:25:21 AM

Item ID: D206-642-541

Accept



Setup Start



Revision ID:

Stop



Item Name: Replacement Skidtube

Start Date: 1/24/2011 Start Qty: 1.00



Cust Item ID:

Required Date: 1/31/2011 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

280

QC5- Inspect part completeness to step on W/O

0.00

8/10/210



QC

Memo

0.00

Quality Control

290

Identify as per dwg & Stock Location: _____

0.00

PP

65283



Packaging

Memo

0.00

Packaging

11/11/10

300

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

OK 11/02/10

mf

11-02-10

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

NOTE: Date & initial all entries

Picklist Print

Tuesday, January 25, 2011 10:25:26 AM

Page 1

Work Order ID: 65755

Parent Item: D206-642-541

Parent Item Name: Replacement Skidtube

Start Date: 1/24/2011

Required Date: 1/31/2011

Start Qty: 1.00

Required Qty: 1.00

Comments:

IPP Rev:B 05.09.23 Revised per D206-642 Rev. J KJ/JLM
 IPP Rev:C 07-02-23 Added SS Wearplates & Gaskets JLM
 IPP Rev:D 07-12-06 replace NAS1515H3L to D3672-1 DD
 IPP Rev:E 08-04-17 as per PAR 08-015 DD verified by:EC
 IPP Rev:F 08-06-02 add comment DD verified by:EC
 IPP Rev:G 08-10-09 revise details DD verified by:EC

| Component Item ID/ Item Name | Replacement Item ID | Mfg/ Purch | Bin Item | Primary Location | Last Location | Route Seq ID | Unit of Measure | Qty on Hand | Qty per Kit | Total Qty | Qty Issued | Date Issued | Status |
|---------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|-------------|--------------|---------------|----------------|--------|
|---------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|-------------|--------------|---------------|----------------|--------|

D2600-1-190

Manufactured

No

110

Each

46.0000

1

1



Extrusion Round 3" 206

Location

Loc Qty

Loc Code

LG

46

47575

2

59874

44

D3285-1

Manufactured

No

110

Each

116.0000

1

1



Cap

Location

Loc Qty

Loc Code

LG

116

52511

68

52647

48

D3282-041

Manufactured

No

150

Each

11.0000

1

1



Float Web (206L/407)

Location

Loc Qty

Loc Code

LG

11

63389

1

65292

6

65293

4

① [Signature] 11-1-26
 BE 1/31

[Signature] 1
 BE 1/26/11

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

NOTE: Date & initial all entries

Picklist Print

Tuesday, January 25, 2011 10:25:26 AM

Work Order ID: 65755

Parent Item: D206-642-541

Parent Item Name: Replacement Skidtube

Start Date: 1/24/2011

Required Date: 1/31/2011

Start Qty: 1.00

Required Qty: 1.00

D2649

Manufactured No

190 Each

327.0000 12 12



Cross Bolt Spacer



BE 1/02/03

Location

Loc Qty

Loc Code

LG

327

58545

2

60652

4

61496

2

62889

11

63359

3

65317

305

12

D3275-1

Manufactured No

190 Each

113.0000 12 12



Crossbolt Spacer



BE 1/02/03

Location

Loc Qty

Loc Code

LG

113

53453

8

62399

1

63546

19

65295

85

11

CR3212-4-03

Purchased No

250 Each

1,869.000 2 2



Cherry Rivet



11/02/09

Location

Loc Qty

Loc Code

ST311

1869

110153

35

111359

5

112314

2

114436

448

114450

33

114859

1346

M 110139

x2

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

NOTE: Date & initial all entries

Picklist Print

Tuesday, January 25, 2011 10:25:27 AM

Page 3

Work Order ID: 65755

Parent Item: D206-642-541



Parent Item Name: Replacement Skidtube

Start Date: 1/24/2011


Required Date: 1/31/2011

Start Qty: 1.00


Required Qty: 1.00

D3415-041 Manufactured No 250 Each 33.0000 1 1

 Nut Plate  11/02/09

| | Location | Loc Qty | Loc Code |
|--|----------|---------|----------|
| CCR264SS3-3 Purchased No 250 Each 186.0000 2 | ST056 | 33 | |
| | 33842 | 33 | |
| | | | |
| | | | |

Cherry Rivet  2 11/02/09

| | Location | Loc Qty | Loc Code |
|---|----------|---------|----------|
| ALS4-1032-130 Purchased No 250 Each 927.0000 78 | ST311 | 186 | |
| | 112314 | 4 | |
| | 113539 | 44 | |
| | 113973 | 138 | |
| | | | |

Insert  78 11/02/09

| | Location | Loc Qty | Loc Code |
|-------|----------|---------|----------|
| PKG11 | | 500 | |
| | 114723 | 500 | |
| ST281 | | 292 | |
| | 116049 | 292 | |
| ST282 | | 96 | |
| | 110511 | 10 | |
| | 115911 | 86 | |
| ST381 | | 39 | |
| | 114654 | 39 | |

X78

Tuesday, January 25, 2011 10:25:27 AM

Shop Packet Print

Page 3

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

NOTE: Date & initial all entries

Picklist Print

Tuesday, January 25, 2011 10:25:27 AM

Page 4

Work Order ID: 65755

Parent Item: D206-642-541



Parent Item Name: Replacement Skidtube

Start Date: 1/24/2011



Required Date: 1/31/2011

Start Qty: 1.00



Required Qty: 1.00

D3536-15 Manufactured No 270 Each 18.0000 1 1
  11/02/09
 Gasket



| Location | Loc Qty | Loc Code |
|--------------|---------|-----------|
| FP | 1 | |
| 56055 | 1 | |
| FP011 | 16 | |
| <u>63568</u> | 16 | <u>VI</u> |
| FP11 | 1 | |
| 59238 | 1 | |

D3536-23 Manufactured No 270 Each 9.0000 1 1
  11/02/09
 Gasket

| Location | Loc Qty | Loc Code |
|--------------|---------|-----------|
| FP011 | 9 | |
| <u>63570</u> | 9 | <u>VI</u> |

D3536-35 Manufactured No 270 Each 4.0000 1 1
  11/02/09
 Gasket

| Location | Loc Qty | Loc Code |
|----------|---------|---------------|
| FP012 | 4 | |
| 58683 | 1 | |
| 63579 | 3 | <u>B65573</u> |

D3536-39 Manufactured No 270 Each 15.0000 1 1
  11/02/09
 Gasket

| Location | Loc Qty | Loc Code |
|--------------|---------|-----------|
| FP012 | 14 | |
| <u>63578</u> | 14 | <u>XI</u> |
| FP12 | 1 | |
| 58215 | 1 | |

Tuesday, January 25, 2011 10:25:27 AM

Shop Packet Print

Page 4

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

NOTE: Date & initial all entries

Picklist Print

Tuesday, January 25, 2011 10:25:27 AM

Page 5

Work Order ID: 65755

Parent Item: D206-642-541

Parent Item Name: Replacement Skidtube

Start Date: 1/24/2011

Required Date: 1/31/2011

Start Qty: 1.00

Required Qty: 1.00

D3535-15 Manufactured No 270 Each 11.0000 1 1
Wearshoe

Location Loc Qty Loc Code

FP18 11

63569 11

D3535-35 Manufactured No 270 Each 5.0000 1 1
Wearshoe

Location Loc Qty Loc Code

FP018 5

63577 5

D3535-39 Manufactured No 270 Each 21.0000 1 1
Wearshoe

Location Loc Qty Loc Code

FP18 8

62945 8

FP-18 13

64076 13

D3535-23 Manufactured No 270 Each 13.0000 1 1
Wearshoe

Location Loc Qty Loc Code

FP021 12

63571 12

Tuesday, January 25, 2011 10:25:27 AM

Shop Packet Print

Page 5

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

NOTE: Date & initial all entries

Picklist Print

Tuesday, January 25, 2011 10:25:27 AM

Page 6

Work Order ID: 65755

Parent Item: D206-642-541

Parent Item Name: Replacement Skidtube

Start Date: 1/24/2011

Required Date: 1/31/2011

Start Qty: 1.00

Required Qty: 1.00

D3537-3

Manufactured No

270

Each

6.0000

1

1



Wearpad

Location

Loc Qty

Loc Code

FP17

6

B65429

62705

6

VL

D3537-1

Manufactured No

270

Each

92.0000

9

9



Wearpad

Location

Loc Qty

Loc Code

FP017

92

B65057

63997

20

VL

64424

72

VL

AN960C10L

NAS1149C0332
R

Purchased

No

270

Each

25.0000

80

80



washer

Location

Loc Qty

Loc Code

ST245

25

M116025

107534

25

Y80

AN960C416

NAS1149C0463
R

Purchased

No

270

Each

29.0000

1

1



washer

Location

Loc Qty

Loc Code

ST346

29

M115358

100993

29

XL

Tuesday, January 25, 2011 10:25:28 AM

Shop Packet Print

Page 6

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

NOTE: Date & initial all entries

Picklist Print

Tuesday, January 25, 2011 10:25:28 AM

Page 7

Work Order ID: 65755

Parent Item: D206-642-541

Parent Item Name: Replacement Skidtube

Start Date: 1/24/2011

Required Date: 1/31/2011

Start Qty: 1.00

Required Qty: 1.00

D3672-1

Manufactured No

270 Each

1,309.000

2

2



Phenolic Washer



HL 1/102/09

Location

Loc Qty

Loc Code

ST077

1309

42329

10

52505

299

64177

1000

X2

AN3C4A

Purchased No

270 Each

1,172.000

80

80



BOLT



HL 1/102/09

Location

Loc Qty

Loc Code

ST350

1172

115300

25

116075

947

116590

200

X80

AN4C5A

Purchased No

270 Each

447.0000

1

1



BOLT



HL 1/102/09

Location

Loc Qty

Loc Code

ST346

447

110552

1

112243

446

X1

Tuesday, January 25, 2011 10:25:28 AM

Shop Packet Print

Page 7

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

NOTE: Date & initial all entries

Picklist Print

Tuesday, January 25, 2011 10:25:28 AM

Page 8

Work Order ID: 65755

Parent Item: D206-642-541

Parent Item Name: Replacement Skidtube

Start Date: 1/24/2011

Required Date: 1/31/2011

Start Qty: 1.00

Required Qty: 1.00

D2646

Manufactured No

270 Each

84.0000

1

1



11/02/09

Aft Cap

Location

Loc Qty

Loc Code

FP-4

13

57332

13

x1

FP6

17

52663

3

62678

12

63633

2

Return 2010

54

62678

54

D3413-1

Manufactured No

270 Each

33.0000

1

1



11/02/09

Ring

Location

Loc Qty

Loc Code

ST420

17

62961

17

VI

ST473

16

51586

1

53446

5

65294

10

Tuesday, January 25, 2011 10:25:28 AM

Shop Packet Print

Page 8

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

NOTE: Date & initial all entries



| | | | |
|-------------------------------|--------------------------------|---|------------------------|
| DESIGN CP | DRAWN BY PH | DART AEROSPACE USA, INC. PORT HADLOCK, WA | |
| CHECKED [Signature] | APPROVED [Signature] | DRAWING NO. D3274 | REV. D SHEET 1 OF 4 |
| DATE 06.12.19 | | TITLE SKIDTUBE ASSEMBLY | SCALE NTS |
| A | 04.03.15 | NEW ISSUE | |
| B | 04.08.09 | MOVE SADDLE HOLE: 42.14 WAS 42.76 | |
| C | 05.03.16 | ADD -043; NEW INSERTS | |
| D | 06.12.19 | NEW INSERTS, SS WEARSHOE + GASKET | |

RELEASED
07.02.12
DEO ATTACHED

| Qty -041 | Qty -043 | Part Number | Description |
|-------------|-------------|---------------|---|
| X | | D3274-041 | SKIDTUBE ASSEMBLY |
| | X | D3274-043 | SKIDTUBE ASSEMBLY |
| 1 | 1 | D2600-1-240 | EXTRUSION |
| 1 | 1 | D2646 | AFT CAP |
| 12 | 12 | D2649 | CROSS BOLT SPACER |
| 12 | 37 | D3275-1 | CROSS BOLT SPACER |
| 1 | 1 | D3282-041 | FLOAT WEB |
| 1 | 1 | D3285-1 | CAP |
| 1 | 1 | D3413-1 | RING |
| 1 | 1 | D3415-041 | NUT PLATE |
| 1 | 1 | D3535-15 | WEARSHOE |
| 1 | 1 | D3535-23 | WEARSHOE |
| 1 | 1 | D3535-35 | WEARSHOE |
| 1 | 1 | D3535-39 | WEARSHOE |
| 1 | 1 | D3536-15 | GASKET |
| 1 | 1 | D3536-23 | GASKET |
| 1 | 1 | D3536-35 | GASKET |
| 1 | 1 | D3536-39 | GASKET |
| 9 | 9 | D3537-1 | WEARPAD |
| 1 | 1 | D3537-3 | WEARPAD |
| 78 | 78 | ALS7-1032-130 | INSERT (or AKS4-1032-130, ALS4-1032-130, AELS-1032-130) |
| 80 | 80 | AN3C4A | BOLT |
| 1 | 1 | AN4C5A | BOLT |
| 1 | 1 | AN960C416 | WASHER |
| 80 | 80 | AN960C10L | WASHER |
| 2 | 2 | CCR264SS3-3 | RIVET |
| 2 | 2 | CR3212-4-03 | RIVET |
| 2 | 2 | NAS1515H3L | WASHER |

SHO COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. **65755**
45755
11-01-25

GENERAL NOTES:

1. TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
2. DAMAGE TOLERANCE ON FWD BEND:
THERE SHOULD BE NO VISIBLE WRINKLES IN THE BEND FROM THE GROUND TO A HEIGHT OF 7 INCHES ABOVE THE GROUND. IT IS ACCEPTABLE TO POLISH OUT GOUGES UP TO 0.020 DEEP IN THE BENT PORTION OF THE TUBE. A MAXIMUM REDUCTION IN DIAMETER OF 0.150" IS ACCEPTABLE IN THE BENT PORTION OF THE TUBE.
3. ALL HOLES DRILLED ON CENTERLINES.
4. BOND D3282-041 FLOAT WEB INTO D3274-1/3 OUTER TUBE WITH NON-STRUCTURAL SIKAFLEX-241/291 ADHESIVE PER DART QSI 015. ENSURE HOLES LINE-UP.
5. WELDING TO BE DONE PER DART QSI 004.
6. FINISH: - ACID ETCH, ALODINE ASSEMBLY PER DART QSI 005 4.1
- POWDER COAT WHITE (REF. 4.3.5.1) PER DART QSI 005 4.3
7. DRILL Ø0.297 HOLES FOR ALS7-1032-130 INSERTS USING DT3274-1T2 BEFORE FINISH. INSTALL ALS7-1032-130 INSERTS AFTER FINISH. SEAL WEARSHOE BOLTS WITH SIKAFLEX -241/-291.
8. SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES "LPS-3" AFTER FINISH AND INSTALLATION OF INSERTS. COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF POWDER COATING WITH MEK DEGREASER.

Copyright © 2004 by DART AEROSPACE USA, INC.

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

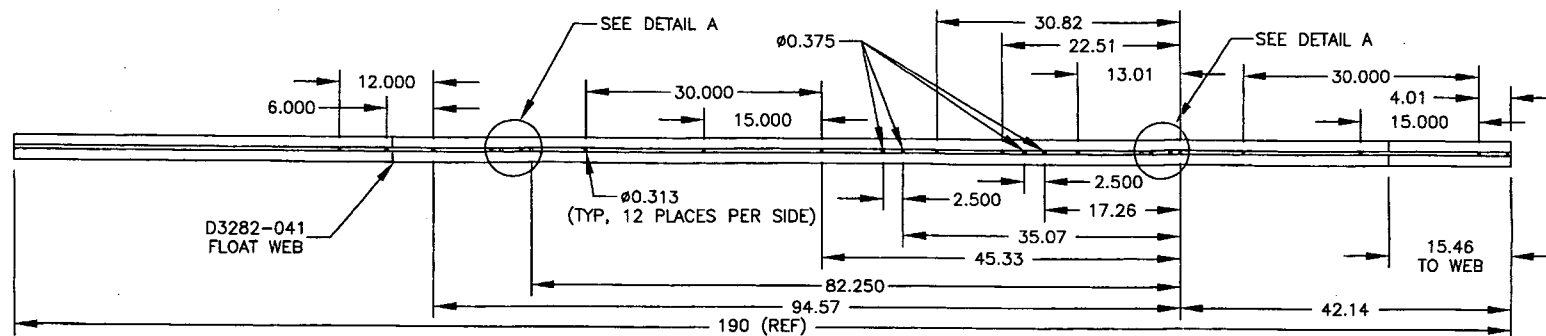
Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

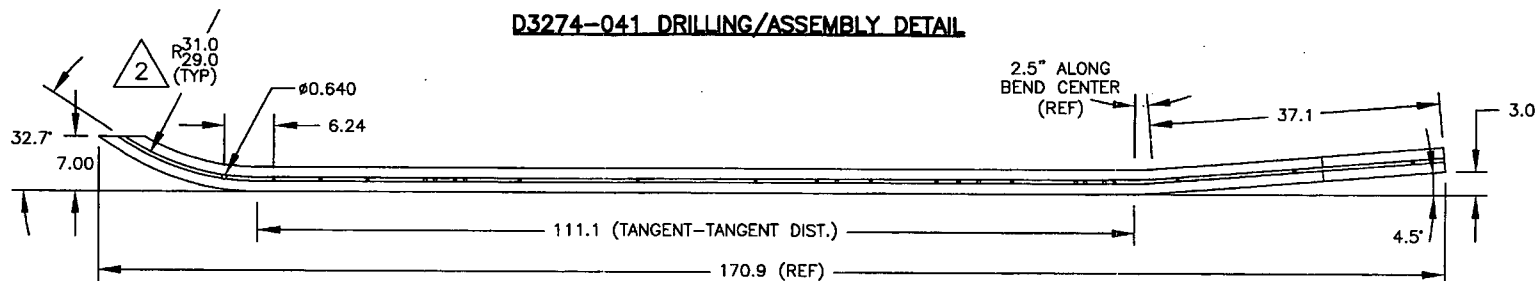
| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

NOTE: Date & initial all entries

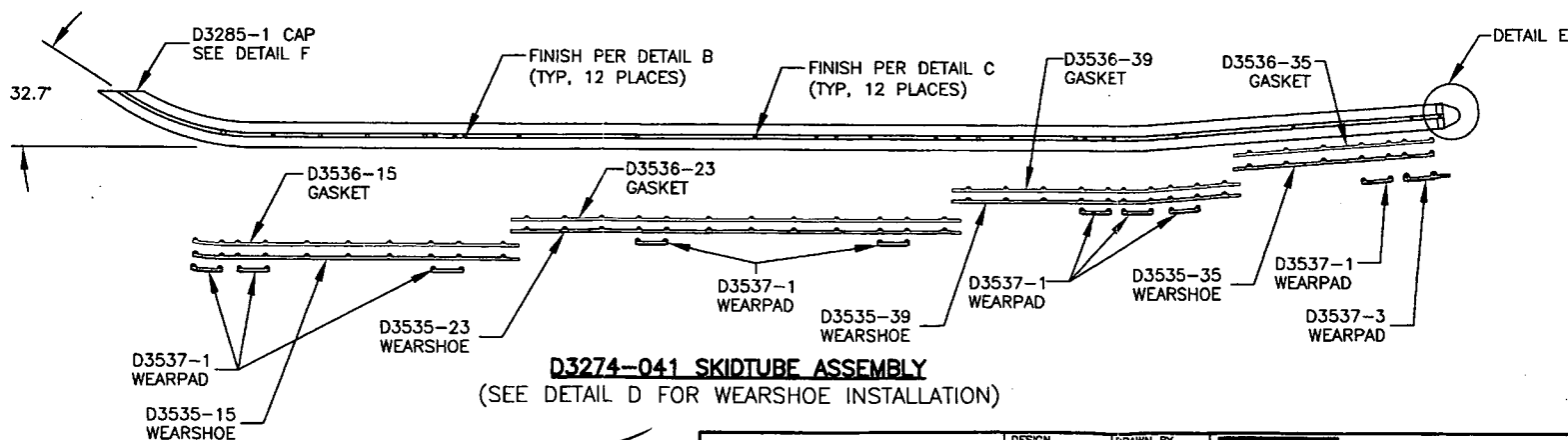
DEO ATTACHED



D3274-041 DRILLING/ASSEMBLY DETAIL



D3274-041 BEND/DRILLING DETAIL



D3274-041 SKIDTUBE ASSEMBLY

(SEE DETAIL D FOR WEARSHOE INSTALLATION)

RELEASED

07.02.12

alo 45755

COPYRIGHT © 2004 BY DART AEROSPACE USA, INC.

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.

| | | | | |
|---------|----------|----------|-------------------|--|
| DESIGN | CP | DRAWN BY | PH | DART DART AEROSPACE USA, INC. PORT HADLOCK, WA |
| CHECKED | # | APPROVED | # | DRAWING NO. D3274 |
| DATE | 06.12.19 | TITLE | SKIDTUBE ASSEMBLY | REV. D SHEET 2 OF 4 SCALE 1:15 |

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

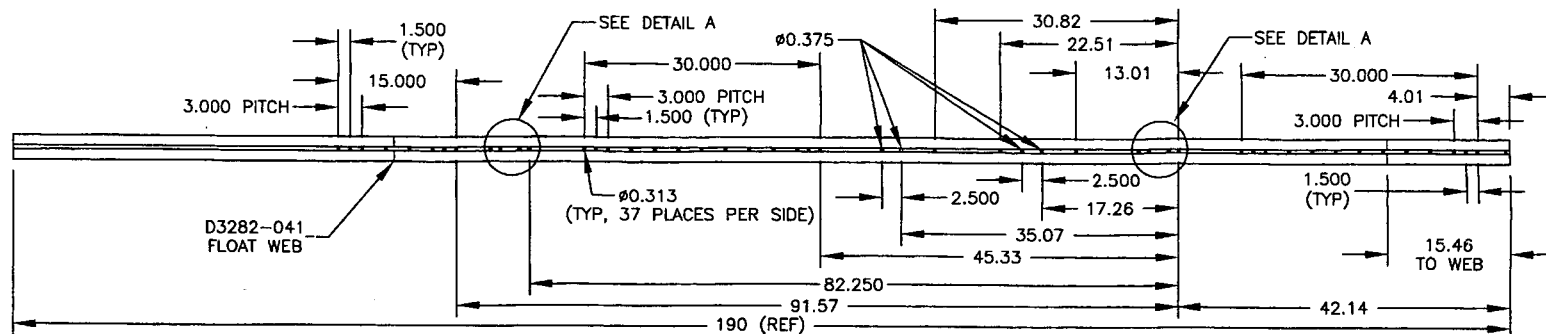
Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

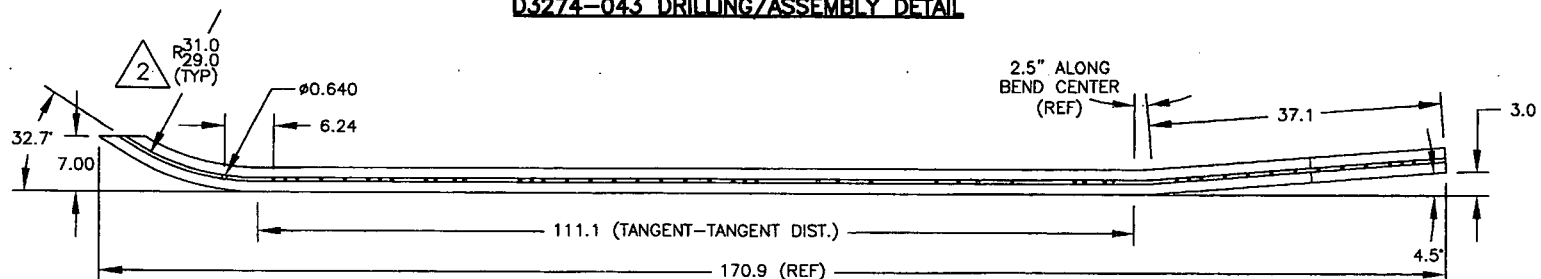
NOTE: Date & initial all entries

45755
w/o 45755

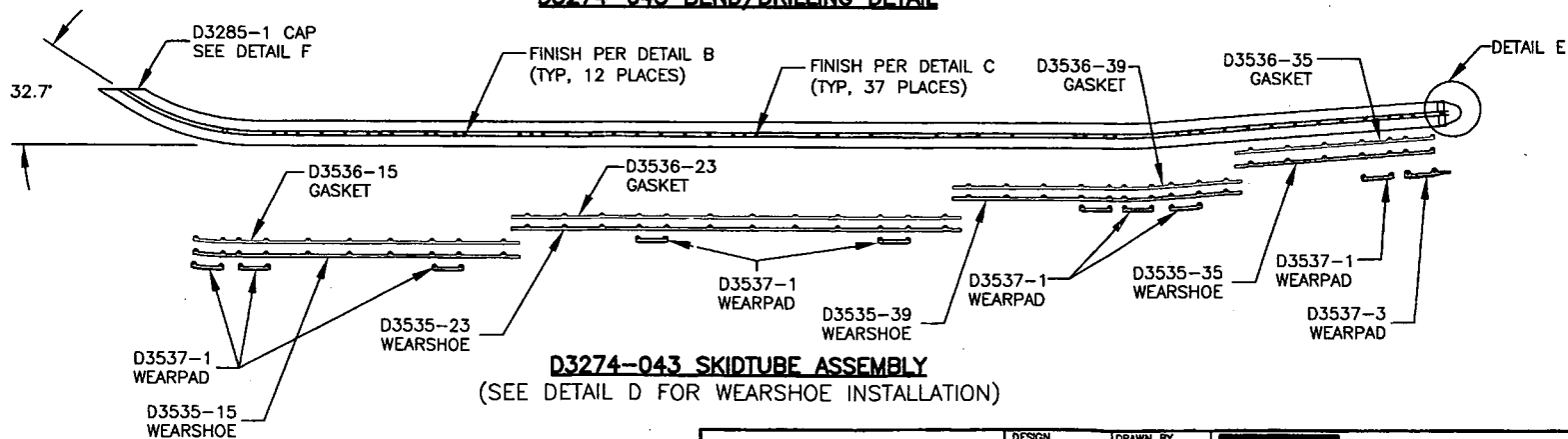
DEO ATTACHED



D3274-043 DRILLING/ASSEMBLY DETAIL



D3274-043 BEND/DRILLING DETAIL



D3274-043 SKIDTUBE ASSEMBLY
(SEE DETAIL D FOR WEARSHOE INSTALLATION)

RELEASED

07.02.12

| | | | | | | |
|---|--|-------------------|----|-------------|----|--|
| COPYRIGHT © 2004 BY DART AEROSPACE USA, INC. | | DESIGN | CP | DRAWN BY | PH | DART DART AEROSPACE USA, INC. PORT HADLOCK, WA |
| THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC. | | CHECKED | # | APPROVED | # | |
| DATE | | 06.12.19 | | DRAWING NO. | | D3274 |
| TITLE | | SKIDTUBE ASSEMBLY | | REV. D | | SHEET 3 OF 4 |
| SCALE | | 1:15 | | | | |

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

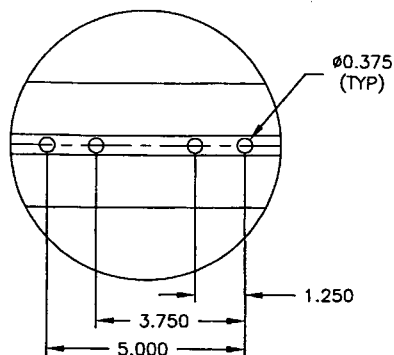
Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

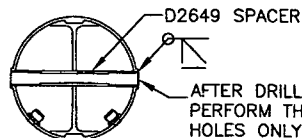
| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

NOTE: Date & initial all entries

DETAIL A: DRILL DETAIL

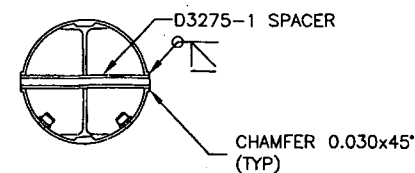


DETAIL B FOR 0.375 HOLES ONLY



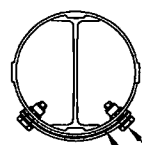
- AFTER DRILLING AND BENDING ASSEMBLY
PERFORM THE FOLLOWING FOR 0.375
HOLES ONLY:
1. CHAMFER HOLE 0.030x45°
 2. INSERT D2649 SPACER
 3. WELD INTO PLACE AND GRIND FLUSH
 4. C'BORE TO 0.313x0.75 DEEP

DETAIL C FOR 0.313 HOLES ONLY



WU 65755

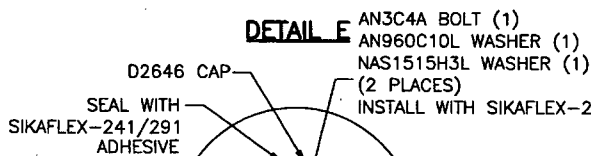
DETAIL D



- ALS7-1032-130 INSERT (1)
AN3C4A BOLT (1)
AN960C10L WASHER (1)
(78 PLACES)

GASKET/WEARSHOE/WEARPAD (REF)

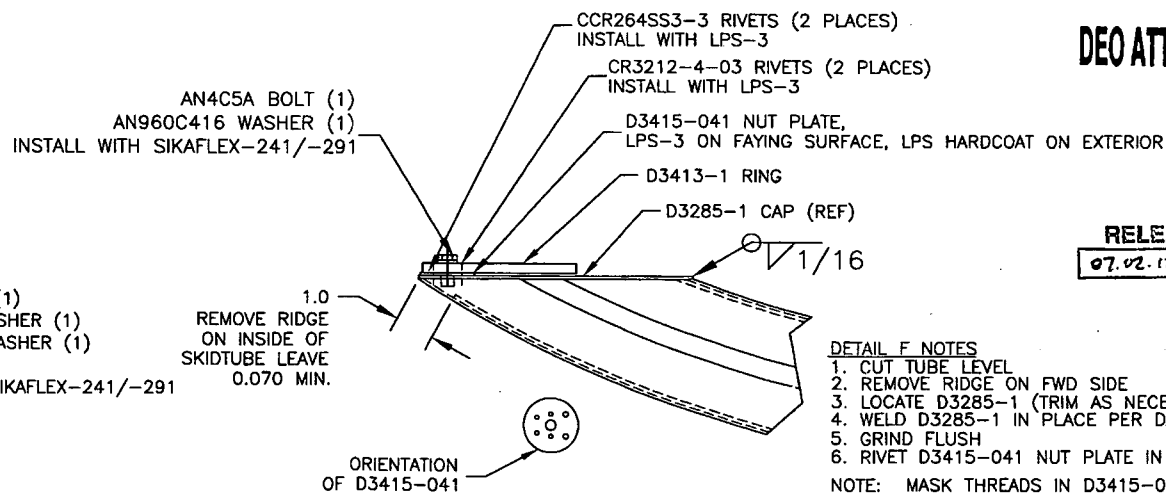
DETAIL E



0.208 (2 PLACES)
DRILL PRIOR TO INSTALLING
D2646 CAP

BORE OUT END OF SKIDTUBE
TO 0.75 DEPTH AND 0.070 WALL

DETAIL F: END FINISHING DETAIL



DEO ATTACHED

RELEASED

07.02.12

DETAIL F NOTES

1. CUT TUBE LEVEL
2. REMOVE RIDGE ON FWD SIDE
3. LOCATE D3285-1 (TRIM AS NECESSARY)
4. WELD D3285-1 IN PLACE PER DART QSI 004
5. GRIND FLUSH
6. RIVET D3415-041 NUT PLATE IN PLACE

NOTE: MASK THREADS IN D3415-041
PRIOR TO FINISH

| | | | | | | | |
|--|--|---------|----------|----------|----|--|------------------------|
| COPYRIGHT © 2004 BY DART AEROSPACE USA, INC. | | DESIGN | CP | DRAWN BY | PH | DART DART AEROSPACE USA, INC. PORT HADLOCK, MA | |
| THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC. | | CHECKED | # | APPROVED | # | DRAWING NO. D3274 | REV. D SHEET 4 OF 4 |
| | | DATE | 06.12.19 | | | TITLE SKIDTUBE ASSEMBLY | SCALE 1:3 |

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

NOTE: Date & initial all entries

| | | | | | | | |
|----------------------|----------------------------|------------------|--|--|-------------------------|---------------------------|--------------|
| DRAWING NO. D3274 | TITLE SKIDTUBE ASSEMBLY | REV. D | DART AEROSPACE USA, INC ENGINEERING ORDER | | D.E.O. NO. D3274-D-1 | SHEET NO. SHEET 1 OF 1 | SCALE NTS |
| DRAWN CP | CHECKED | MFG. APPR. | APPROVED | | DE APPR. | | |
| DATE 09.06.17 | DATE 09.06.23 | DATE 09/06/23 | DATE 09/06/23 | | DATE 09.06.23 | | |

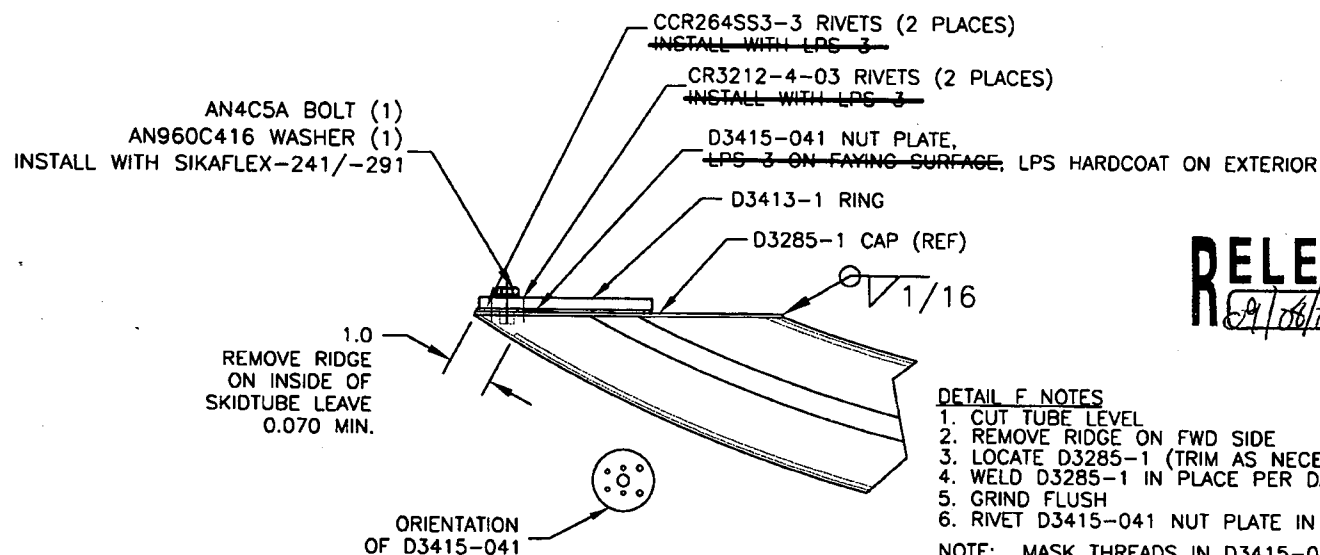
LPS-3 IS NO LONGER USED DURING ASSEMBLY OF SKIDTUBE.

AMEND NOTE 8: ~~"SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES 'LPS 3' AFTER FINISH AND INSTALLATION OF INSERTS.~~
COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES 'LPS PROCYON' AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF
POWDER COATING WITH MEK DEGREASER."

AMEND DETAIL F AS SHOWN:

w/o 45755

DETAIL F: END FINISHING DETAIL



RELEASED
09/06/23

DETAIL F NOTES

1. CUT TUBE LEVEL
2. REMOVE RIDGE ON FWD SIDE
3. LOCATE D3285-1 (TRIM AS NECESSARY)
4. WELD D3285-1 IN PLACE PER DART QSI 004
5. GRIND FLUSH
6. RIVET D3415-041 NUT PLATE IN PLACE

NOTE: MASK THREADS IN D3415-041
PRIOR TO FINISH

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

NOTE: Date & initial all entries

NO. 242

AWS D17.1.2001
QUALIFICATION TEST RECORD

Name: Barclay Elliott
Job number: 652152
Part number: 206-642-341
Description: 206 Skid tube
Welding Process: Tig ☒ Mig ☐
Base material: Aluminum
Current: AC ☒ DC ☐

TEST REQUIREMENTS AND RESULTS

Visual: pass ☒ fail ☐
Penetration: pass ☒ fail ☐

UNACCEPTABLE

Cracks: pass ☒ fail ☐
Undercut: pass ☒ fail ☐
Pin holes: pass ☒ fail ☐
Overlap (cold lap) pass ☒ fail ☐
Porosity (surface): pass ☒ fail ☐
Coloration: pass ☒ fail ☐

Qualifier Pat Everett Date of Test Coupon 11-01-13
Welder Barclay Elliott Date of Test Coupon 11-01-13

The above named individual is qualified in accordance with AWS D17.1.2001 to weld